JULY
1970

45¢

Live Steam

THE MONTHLY MAGAZINE FOR ALL LIVE STEAMERS AND LARGE-SCALE MODEL RAILROADERS

D. C. & H. RAILROAD

General Offices
315 Katonah Avenue Katonah, New York

HALSTED PARK JR. president
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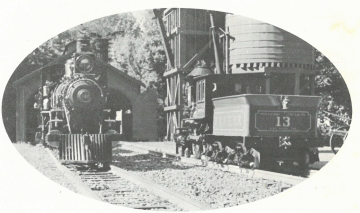

THE SUNRISE ROUTE
Scale-One and One Half Inches to One Foot

in this issue

BIG NEWS
for Live Steamers

Halsted Park's
DC&HRR

Live Steam
magazine

JULY 1970 VOL. 4 NO. 7

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COVER PHOTO

Motive power on Halsted Park's DC&H RR, sets at the engine terminal at Sunrise awaiting service assignments. #546 on the left was built by Frank deSantis and #13 on the right by Halsted Park. Photo by Robert Morehouse.

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LIVE STEAM
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Cadillac, Michigan 49601

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. . . *from the cupola*

What wonderful days these have been! Letters and phone calls back and forth between this office and the Southern Railway's headquarters . . . the excitement of watching the competition (see page 3) take shape; the making of many new acquaintances which will surely result in new friendships; and the knowledge that, through the efforts of Mr. Clayter and the assistance of the whole Southern Railway System, many new Live Steam locomotives will come into being – many new Live Steamers will join our ranks.

There's more! Did you know that "we" have our own railway? The BLS RR, no less! Of interest to a great many of the Brotherhood of Live Steamers will be the *Berne-Lotschberg-Simplon Bahn* – one of Switzerland's network of railroads included in Swissair's *Railroader* tour. The brochure they offer (see page 15) is a veritable handbook on Switzerland's railways (steam and electric) and is sure to whet your desire to know more by getting "aboard abroad" as they say!

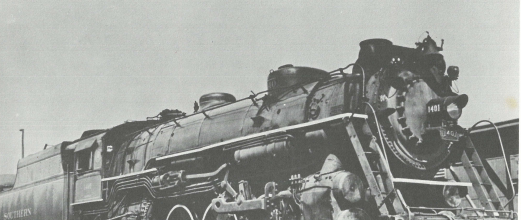
. . . and still more! There *will* be a LIVE STEAM Excursion on the Cadillac & Lake City Railroad again this fall. But it didn't look that way for a few days. A month before the C&LC passenger service was to begin on Memorial Day, an inspection was made for an extension on the flue time for the Two Spot. Lo and behold, a crack was found in the boiler shell which, while it can be repaired, eliminated the extension time on the flues and left the C&LC without steam power to pull its "steam train!" All has ended well, though, with arrangements now being made to lease an engine from STEAMTOWN, U.S.A. The C&LC's passenger runs – and the LIVE STEAM Excursion run this fall – will be behind an ex-CPR 4–6–0, still in its original maroon and gray color scheme, while the Two Spot will receive its needed repairs. More about the LIVE STEAM Excursion in following issues.

See what we mean? These have, indeed, been wonderful days and there is still more good news in the offing! We'll save that for a bit and tell you about them as they appear. The schedule now has the Southern Ps–4 material starting in the August issue, another new feature in the September issue and still more in the November issue.

This will be the last of our 16-page issues which has become the norm in the past few years. Remember the 8-page issues that we started out with in 1966? Anyone suggesting that within four years we would double and triple the size of our Magazine didn't know what *we* had in mind at that time! But LIVE STEAM Magazine has grown in size, in quality, in content and in stature and, be the Good Lord willing, we'll continue in that direction. The August issue will contain twenty pages, the September goes to 22 with a big fold-out of the Ps–4 Erection Drawing. As we feel our way into this expansion (and the increased work-load it will bring) we will better know what the real potential is for LIVE STEAM Magazine.

We'd like to ask one favor: notices are sent out when each subscription is due for renewal, and it would be of inestimable help to us here if you could make your remittance before the last issue is sent out. Each late renewal involves an extra twelve filing operations and when those get multiplied by a couple of hundred or so, the work load gets very heavy! We give a six- to eight-week advance notice on expirations and hope you will give yours your immediate attention when it arrives. My wife will thank you, my son will thank you and I will thank you!

– W.C.F. –



America's First

LIVE STEAM COMPETITION!

Live Steamers attending the National Meet of the Brotherhood of Live Steamers in Los Angeles received the first word of a competition in the construction of a Live Steam locomotive.

Through arrangements with Mr. W. Graham Clayter, Jr., President of the Southern Railway System, that Company will sponsor the first such contest in this hobby.

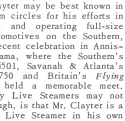
Mr. Clayter may be best known in Live Steam circles for his efforts in preserving and operating full-size steam locomotives on the Southern, and the recent celebration in Anniston, Alabama, where the Southern's 2-8-2 #4501, Savanah & Atlanta's 4-6-2 #750 and Britain's *Flying Scotsman* held a memorable meet. What many Live Steamers may not know, though, is that Mr. Clayter is a bona fide Live Steamer in his own right. A Buddy-L engine converted to Live Steam operates in his yard at home and, with his brother, he has restored and operates a 24-foot steam boat on a lake in Virginia.

At this writing, the details of the competition are not complete... but this much is known: the competition will be based on an operating miniature Live Steam locomotive patterned after the Southern's Ps-4 Class Pacifics. It can be built in any scale and judging will be on a point system for both esthetics and performance. Awards will be made at the BLS National Meet in 1975, giving ample time for the program.

The Southern's Engineering Department is arranging for drawings of the Ps-4's at a scale of 1/2" = 1'0" and these will be presented in LIVE STEAM Magazine during the following few months. Photos of the engines will be presented all through the time of the competition in order to give Live Steamers the best possible information on these locomotives.

All Live Steam suppliers will be encouraged to prepare and offer the necessary castings in all scales so that a maximum number of Live Steamers may participate. In a special effort to assist new-comers to the Live Steam Hobby, participants in the competition will be rewarded for sharing information with others through LIVE STEAM Magazine. For those who are building an engine, their shared information will be considered for extra points in the judging of their entry; for those who offer material even though they are not actually building an engine, the judges will give points towards a special award to be made by LIVE STEAM Magazine.

Mr. Clayter is to be commended for his support of his hobby. His efforts will make infomation available to Live Steamers that will be useful for many years to come. Suppliers to this hobby will have new prototype material to offer which includes a range of standard steam parts not heretofore available to their customers. Many Live Steamers will find themselves happily involved in the construction and eventual operation of a Live Steam locomotive... and the Southern Railway System's beautiful green-and-gold Ps-4's will live on, recalling days of the *Crescent Limited, Piedmont Limited, Memphis Special, Royal Palm, Ponce de Leon* and other crack trains of the Southern's fleet.



W. Graham Claytor, Jr.
President, Southern Railway System

A lifetime love for Live Steam culminates in the

D.C.&H.R.R.

It all started back in Asbury Park, New Jersey, when he spent his boyhood vacations at that resort area. While his family enjoyed the sea shore, he could be found from dawn to dusk with a Cagney locomotive and cars that ran parallel to the broad-walk carrying vacationers.

With the passing of years came marriage and two sons, followed by a large layout of ¼-inch scale electric trains.

In the early 1950's, Halsted Park, Jr., and his wife, Virginia, traveled from their home in Katonah, New York, to visit the late Lester Friend in Beverly, Massachusetts. In their discussion, Lester convinced them that Halsted should build a Live Steam locomotive and parts for a 1½" scale 4–4–0 were ordered from Little Engines. By 1957 the rolling stock consisted of a locomotive, *Suzy Belle*, a gondola and a caboose.

Originally the DC&HRR was the *David, Christopher and Halsted Railroad* – named for its builder, Halsted, and his two sons. David, now 24, is a Lieutenant in the Army, stationed at Fort Carson, Colorado. Christopher, 20, is a sophomore at Stetson University in DeLand, Florida. The DC&HRR, though, is occasionally referred to by Ginny as the *Dandelion, Crabgrass & Hilly!*

Because of the contour of their ½ acre, the Parks were limited to 175 feet of 7¼ inch straight track. Not being able to accomodate more rolling stock, Halsted began building a railway yard in 1½" scale. Completed to date are a passenger station which is fitted with pot-bellied stoves, benches, chairs, desk, safe, clock, telephones, mail box, hand truck and baggage cart . . . and a two-stall engine house, 15-gallon water tower, a working coal elevator, telephone poles, a high ball signal, yard and right-of-way signs. A 40 scale foot windmill was a birthday present from Ginny.

In the Superintendent's Office (a former tool shed) are found DC&H tickets, train orders, stationery and a validater. Railroadiana also includes a station clock, operating telephone and telegraph, lantems, marker and switch lamps, locomotive oil cans, conductor's and brakemen's hats with DC&H brain plates, switch locks and Pullman steps as well as a flag-lassee-topedo brakeman's kit and an order hoop. The most treasured exhibit is an original pin from a link-and-pin coupler.

A year and a half ago, Park fell in love with #546 – a 4–4–0 locomotive built by Frank deSantis from plans of a Seaboard Air Line engine built by the Richmond Works in 1895. Purchase arrangements were completed and Halsted has since added many refinements and much detail to the #546.

This past fall, the Parks acquired an adjoining 90 x 220 foot piece of property and will begin to lay an additional 600 feet of track after 600 yards of fill has settled.

Halsted has been a member of the full-size Gold Coast Railroad in Fort Lauderdale, Florida, for the past 11 years and has a certificate as a qualified engineer. Although he isn't fond of diesels, to put it mildly, he will admit that on several occasions he has acted as engineer on the *20th Century Limited* between Harmon and Albany, New York.

After he had started building his first locomotive, Halsted discovered that it was illegal to use a boiler pressure of more than 15 lbs. in New York State unless the boiler was made to the A.S.M.E. miniature boiler code and inspected annually, both internally and externally. He consulted with lawyers, and with the New York Labor Department, but there was no other way to interpret the law.

In 1964, he consulted two friends who were lobbyists for the Petroleum Industry in Albany whom he had known when he was president of the Empire State Petroleum Association. One of them, Mr. Charles Mathews, said he would help get the law amended. Halsted phrased an amendment *to exempt from inspection the boilers of a miniature model locomotive, boat, tractor or stationary engine constructed and maintained as a hobby and not for commercial use, and having a volume of less than two cubic feet and a grate area not in excess of two square feet.* The Assembly and Senate passed the amendment and Governor Rockefeller signed it in 1965.

As an outgrowth of collecting names of other Live Steamers in New York State for support to get the law changed, the idea of a National Directory of the Brotherhood of Live Steamers was born. Halsted had 2,000 double post cards printed for the National survey and they were sent to Harry Dixon, Carl Purinton, Ed Kruckeberg and Pershing Scott who distributed them. Information from that survey was updated and published in 1968 by LIVE STEAM Magazine.

Halsted's meticulous workmanship is obvious in the photos presented here, making it difficult to concede that only 1½" scale models are involved. Seeing the realism that he has packed into the first 175 feet of the DC&HRR, we can look forward to some equally well-detailed features on the proposed extension.

The DC&H #546 stands ready, with white flags displayed, to take the Board of Directors to conferences about the new extension of the line beyond the present End-of-Track.

AXEL CROSSER

HALSTED PARK COLLECTION

D. C. & H. RAILROAD

GENERAL OFFICES: 216 KATONAH AVE., KATONAH, NEW YORK

Valid only when signed

PASS

Good only on freight trains

No. 158 Date: 12/14/69

President

"ROUTE OF THE SUNRISE SPECIAL"

Issued to Wm. C. Fratt
Vice Pres. D.C.H. R.R.C.

The D. C. & H. Railroad is built to the scale of one and one half inches to one foot, with a track gauge of seven and one half inches. The equipment is one eighth the size of the prototype. The locomotive is the American Type 4-4-0 used on railroads in the last half of the Nineteenth Century.

ROBERT H. KUHNKE

YARD LIMIT
ROBERT H. KUHNKE
FORM 19
D.C.&H. RAILROAD
19
TRAIN ORDER No.
AT
Opr.
TO
X
FORM 19
D.C.&H. RAILROAD
KATONAH, New York
complimentary
EIGHT TRIP TICKET
Each uncancelled number on the margin of this ticket will be good for one continuous passage in either direction between
GARDEN TERMINAL and SUNRISE STATION
NOT VALID AFTER (Use rubber stamp) JAN 17 1971
President
No 68586
FORM 59
1 2 3 4 5 6 7 8
D. C. & H. RAILROAD
GARDEN TERMINAL to SUNRISE STATION
Good for One Passage limited to One (1) Year from date stamped on back. Subject to tariff regulations. Not Transferable.
President
No 1047
EACH EMPLOYEE ADDRESSED MUST HAVE A COPY OF THIS ORD
Opr.
Time M.

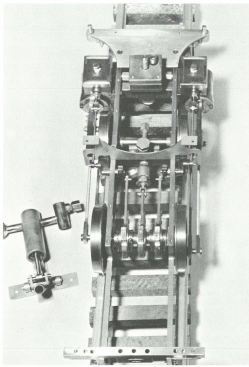
Young Halsted Park (across-page, top) with his favorite Cagney at Asbury Park, New Jersey, in the late 1920's, didn't know that his love for steam would bring him to be Superintendent of his own DC&HRR (across-page, bottom) thirty-odd years later. At the water tower (above), he services his first Live Steam locomotive, a Little Engines' designed American.

It's a hot summer afternoon and the operator at Halsted Park's DC&HRR Sunrise station has joined the hostler and engine crew in the shade of the big trees near the water tower. Those were the good old days! (Photo by Robert Morehouse)

13

building the RARITAN

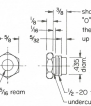
by William H. Morewood



REVISIONS AND CORRECTIONS

Part #24–8 Firebox. (LS 7/69) The 1¼" dimension from the left edge to the first row of staybolt holes is incorrect and should instead be ⅜".

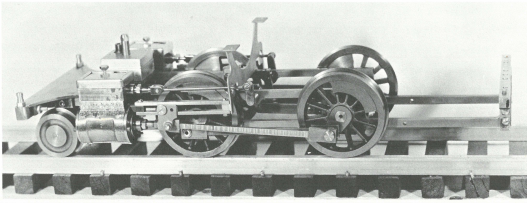
Part #2–6 Feedpump Gland Nut. (LS 6/68) I have found that an "O" ring makes a much more dependable and trouble-free seal than pump packing and suggest that this nut (see drawing) be used to replace the nut described earlier in the series.


⅜ — shorten at assembly so that "O" ring #2–11 just drags on the plunger when the nut is up tight.
⅛
1/16
5/32
.400
5/16 ream
½–20 thread
undercut to root of thread

2–6 FEED PUMP GLAND NUT REVISED

As was mentioned earlier, the engine does throw cinders and hot sparks, and for this reason I recommend that you wear goggles.

Since this is a small engine, it is important that the riding car be equipped with ball bearings. The riding car should also have brakes.



The RARITAN is being built by a good many Live Steamers and the photos here by George J. Foss, Ph. D., of Lancaster, Ohio, show the state of completion of his engine as of early March 1970. Outside of castings purchased from William H. Morewood, Mr. Foss has built this entirely from drawings and articles in LIVE STEAM Magazine. "I am an absolute neophyte in Live Steam," he writes, "and even at extensive machine tool operation although I am an engineer," which helps prove that extensive machine-tool background is not a necessity in Live Steam!

A Better Way To Seat Ball Valves

by George Hill

For a long time, I have been aware (as probably many other Live Steamers have) that the procedure of hammering a ball down on the seat of a check leaves something to be desired as regards steam-tightness.

Much of the bad reputation put on injectors is really due to a leaking check which, in turn, heats up the body of the injector and will effectively prevent, or at least make it difficult, to start the injector.

The problem was brought home to me when I undertook the task of making a lubricator do its job on a 7½-inch gauge Pacific sometime ago. The lubricator itself was not suspect but the low-cost commercial checks installed in the oil feed line were. As the oil feed was continuously under boiler pressure, these checks just had to be good or the lubricator would not operate.

In the usual manner, the checks were modified to have a knife edge seat and the actual seat was formed by giving a hard ball the time-honoured blow with a hammer and brass punch. I put the completed checks under a 200# pressure test and was really taken by the amount of leakage present.

For most people, the punch-and-hammer trick works but this time I had to produce something better. Burnishing the seat with a hard steel ball was found to be the answer. Leakage at 200# pressure was found to be minute.

The tool used is simple in the extreme. In fact, I now have quite a range of the burnishing tools, all about 2" in length. For the ¼" ball I used a piece of 3/16 brass rod. One end is placed in the 3-jaw and the other is centered to full o.d. This is then placed in a clamp on the blacksmith's bench and the center hole heated up and filled with soft solder. The hard steel ball is then seated in the hot solder and cooled off by holding it there with a piece of metal of convenient size. It is best to use acid flux and, when cool, to clean off with nothing more fierce than a bit of worn crocus paper.

In use, the tool is rotated in the lathe or drill press at moderate speed using a good grade of engine oil as a lubricant, presenting the ball seat with quite a low pressure for 5 or 10 seconds.

The Difference Valves

by Arthur Stewart

A steam locomotive in the hands of a muddlehead engineer was, without doubt, the mismatch of the mechanical age.

What truly outstanding differences there were between the man who had a feel for the entire machine, and one who just went along for the ride. I have some railroad recordings which show this up to a marked degree to anyone with an ear for a steam locomotive responding to its master or to its throttle-jerker!

I've ridden with quite a few "hoggers," a word which, incidentally, never occurred to me while riding on an engine in capable hands. "Engineer" was the title I reserved for the outstanding only. Three controls made a steam locomotive perform in a manner variable to a far greater degree than imagined by most.

Throttle – reverse lever – *and* cylinder cocks could set up a nearly infinite combination of performance factors. Every engine jockey learned to operate the throttle – and reverse lever – and a few mastered the cylinder cocks. A rare few learned to use all three in harmonious combinations.

I once sat in an SP 4400 heading the 14-car *Cascade*. We stopped at Martinez and when we tried to start, the 4400 just sort of laid down . . . balked. The road foreman of engines was standing on the ground alongside and, realizing that the rings were badly worn, causing the pressure to equalize in the cylinders, yelled up to my friend, "Open the cylinder cocks." We then moved out as with a newly-shopped engine!

I've seen trains broken in two by just this oversight. It's basic, but only those who sensed what the steam was doing ever mastered the techniques used by the best engineers.

And what does all this mean to you? Nothing – unless you should at some time load your engine to its absolute capacity and expect it to respond favorably. Give it some thought. Try slightly opening the cylinder cocks when starting a maximum load; then, as you get rolling, close them. Result: gentle power with real effort, but almost no tendency to slip. If the openings are too large, careful partial opening must be resorted to. Balances are delicate in small engines, but with real finesse, the results are not too unlike the big engines.

Think back at the times you've wondered why the engineer of a heavy train was wasting dry steam through the cylinder cocks. Sometimes it seemed to be just for making noise, but not when the real masters were in command. Train watching was wonderful, but in steam times listening doubled the pleasure, especially if you had an ear for perfection.

FULL-SIZE DRAWINGS AND CASTINGS FOR building the RARITAN

for additional information write

William H. Morewood

18 Laning Avenue - Pennington, N. J. 08534

Live Steam

BOUND VOLUME THREE

Includes all 1969 issues

AVAILABLE NOW – $12.00 EACH

Durable green cloth binding, gold stamped with LIVE STEAM logo and extensively cross-indexed.

VOLUMES 1 AND 2 SOLD OUT

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Post Office Box 629
Cadillac, Michigan 49601

CALL'S OUT FOR MIDDLE ATLANTIC STATES CLUB

Within easy driving distance of the Washington, D. C., area, there are 70 or more known Live Steamers – a very good nucleus for a club.

Bert B. Brooks of 3028 Beechwood Lane in Falls Church, Virginia 22042 has offered to serve as Acting Secretary to get an organization formed and anyone who is interested should drop him a line at the above address or call him at 703 – 532-8634.

A Live Steam club track in any metropolitan area is almost a necessity. We have had several reports of Live Steam clubs that receive a visitor who turns out to be a local resident with a Live Steam locomotive that has never been off the test track in his shop and, in some cases, has never been run on steam. Living in an apartment or a crowded suburban area doesn't preclude an active interest in the Live Steam Hobby. It can, though, make it impossible to build a track for running . . . and that's half the fun!

Active club members can share the expense, the maintenance and the work of constructing track and other facilities. Even more important, they can share their problems and experiences with others and help each other along with construction which is the purpose of the Brotherhood of Live Steamers.

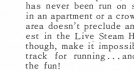
Here's your chance if you live in Virginia, Maryland, Delaware or the District of Columbia. Drop Bert Brooks a note and give him a hand in the organization of a club. Who knows, the Live Steamer you haven't yet met may have the answer to the problem that's been sticking you!

McKENTY AND NELSON SERIES TO CONTINUE NEXT MONTH

The articles "for the apprentice," by Jack D. McKenty, M.D., and "So You Want To Build A Live Steam Locomotive," by Joseph F. Nelson, will take up their usual continuity in the August issue of LIVE STEAM Magazine.

Because of the pressure involved in getting this issue ready for the printer before leaving for the BLS National Meet, it is impossible to include the very important drawings and meet the schedule.

By making this concession, this issue will be printed while we are away and ready for mailing when we return on June 14th . . . still maintaining our schedule of shipping on the 20th of the month preceding the date of issue.



July

01 ONTARIO SUNPARLOR LINES
12 3½" – 4¾"
Jack Hart, Secretary
1381 Shepherd Street
Windsor, Ontario, Canada

18 PUGET SOUND LIVE STEAMERS
Railroad Meet
4¾" – 7½" – 12" gauge
R. B. Steinhauer's track
4628 92nd N. E.
Marysville, Wash. 98270

August

1 SOUTHERN MINNESOTA LIVE STEAMERS
3 ½" Track
5" Track
3½" – 4¾" – 12"
Lake City, Minnesota

2 PALATINE, LAKE ZURICH & WAUKEGAN RAILROAD
3rd Anniversary Meet
4¾" gauge
Frank Sorrille
512 Keller
Barrington, Ill. 60010
Phone 312 – 381-3070

8 PUGET SOUND LIVE STEAMERS
9 Snowshoe Meet & Sixteen Barbeque
McCormel Island
Ralph Hall, Secretary
Route 6, Box 530A
Sedro Woolley, Wash. 98284
Phone 206 – 856-3663

22 NEW ENGLAND STEAM LAUNCH AND MODEL MEET
Marine, Stationary, Traction, Locomotive
Connecticut USA – Bellows Falls, Vt.
Richard M. Mitchell
% Steamer "River Queen"
Bottleboro Road
Hinsdale, New Hampshire 03451

September

1 PENNSYLVANIA LIVE STEAMERS
6 2½" – 3½" – 4¾"
7 William H. Scott, Secretary
R. D. 1, Box 400
Sellersville, Pa. 18960

12 IOWA MODEL STEAM
13 ENGINEERS
3½" – 4¾" – 7½"
Ralph Stuart
R.F.D.
Morrien, Iowa 52302

12 GOLDEN GATE LIVE STEAMERS
13 2½" – 3½" – 4¾"
Jim Scott, Secretary
1225 Scott Street
El Cerrito, California 94530

18 NEW JERSEY LIVE STEAMERS
19 Advance registration required
Ralph W. Jones
Ralph W. Jones, Secretary
845 Kilsyth Road
Elizabeth, N. J. 07208
Phone 201 – 353-4424

26 ONTARIO SUNPARLOR LINES
27 3½" – 4¾"
Jack Hart, Secretary
1381 Shepherd Street
Windsor, Ontario, Canada

October

3 SOUTHERN MINNESOTA LIVE STEAMERS
3½" Track
5" Track – 12"
Lake City, Minnesota

9 PIONEER VALLEY LIVE
10 STEAMERS
3½" – 4¾" – 7½"
Stanley Bumbaugh, Secretary
3 Fleetwood Drive
Sandy Hook, Conn. 06482

Regular Run Days

GOLDEN GATE LIVE STEAMERS
Every Saturday, weather permitting
2½" – 3½" – 4¾" – 7½"
Joe Bryan, Secretary
1223 Scott Street
El Cerrito, California 94530

JAMUL VALLEY RAILROAD
1st Sunday each month
7½" gauge
Henry P. Haas
Route 1, Box 47 A
Jamul, California 92035

LOS ANGELES LIVE STEAMERS
1st Sunday each month
3½" – 4¾" – 7½"
Joel Corbin, Secretary
10723 Kinnoss Street
North Hollywood, Calif. 91606

MONTREAL LIVE STEAMERS
1st Sunday of each month
2½" – 3½" – 4¾" – 7½" gauges
S. H. Galloway, Secretary
1 Place Ville Marie
Bureau 2220, Quebec, Canada

NEW JERSEY LIVE STEAMERS
Every Sunday May through October
2½" – 3½" – 4¾"
Ralph W. Jones, Secretary
845 Kilsyth Road
Elizabeth, N. J. 07208
Phone 201 – 353-4424

PACIFIC NORTHWEST LIVE STEAMERS
Every Sunday May through October
4¾" – 7½" gauge
Ross E. Melville, Dragon
Melville Lane
1435 S. E. 19th Flovel Street
Portland, Oregon 97202

PENNSYLVANIA LIVE STEAMERS
June 14, July 12 & 26, Aug. 9,
2½" – 3½" – 4¾" – 7½"
William H. Scott, Secretary
R. D. 1, Box 400
Sellersville, Pa. 18960

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ALL-SQUARE WALSCHAERTS

What is the difference between the All-Square and the Inclined Walschaerts Valve Gear? The articles by Mr. Nelson refer to it but do not explain it.

RICHARD COLE
100 PROSPECT STREET
CAMBRIDGE, MASS. 02139

(We submitted the above letter to Mr. Nelson and his reply follows. Ed.)

The basic difference between an "all-square" and an "inclined" Walschaerts valve gear is nothing more than aligning the eccentric rod action to the link pin. With an "all-square" valve gear, the link pin swings across the horizontal center line of the driver axles and, with an "inclined" action, the link is located higher on the locomotive. The Baker Valve Gear is an extreme example of the inclined valve gear. The inclined action is a necessity due to the mechanism of the valve gear being in line with the valve stem. Many Live Steamers, however, build Baker valve gears as "all-square" to get a more rugged, but out-of-scale, mechanism.

JOSEPH F. NELSON
7008 THIRD AVENUE
LOS ANGELES, CALIF. 90043

BETTER WHEEL STANDARDS

I noticed with interest and approval that on page 12 (LS 9/69) is a diagram of wheel standards. These differ from those I have seen previously published in catalogs by the inclusion of an increase in the back-to-back dimension permissible of .007" and a decrease in the overall thickness of the wheel by .058". I am speaking now of 1" scale.

The latter change, which narrows the wheel by nearly a sixteenth, is certainly a step in the right direction as far as appearance is concerned, plus an improvement in clearances between wheels and motion.

It has been the experience in modelling in smaller scales, that oversize and coarse wheel standards are unnecessary for reliable performance. Every branch of railway modelling is painfully going through the trials of going from coarse to fine scale wheels and track.

I suggest that Live Steamers start immediately to work toward a more nearly scale wheel and back-to-back standard. You have pointed out that to run on club and private tracks, a builder must be willing to standardize. A very slight change now can be made much more easily than later.

I have noticed almost no derailments of locomotives at the PVLS track, but many derailments of riding cars. There seems to be a feeling that any old trucks will do for the latter purpose.

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